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Category: **Industry**
Domain: Various.
User Name: **Udayan Banerjee**
Title: CTO
Organization: **NIIT Technologies, India.**

Q1. Please explain briefly what are your application domains and your role in the enterprise.

Udayan Banerjee: NIIT Technologies which is an India based organization. With the help of more than 5000 professionals, we provide software services to our clients who are distributed across the global.

We service the following domains
 -Travel, Transportation and Logistics
- Banking, Finance and Insurance
- Retain
- Manufacturing

I am the CTO and I am responsible for
-Guiding technology investment in the organization
-Finding innovative use of new technology for delivering value to our clients
-Cross seeding ideas across different client engagement without violating any IP
-Collaborating with external agencies on emerging technologies

Q2. When the data models used to persistently store data (whether file systems or database management systems) and the data models used to write programs against the data (C++, Smalltalk, Visual Basic, Java, C#) are different, this is referred to as the "impedance mismatch" problem. Do you have an "impedance mismatch" problem?

Udayan Banerjee: We do have cases of impedance mismatch. However, I feel the bigger problem is the mismatch between the data structure of an object, which is hierarchical and querying and reporting which is tabular.
Therefore one round of translation has to happen. It can either happen when the object is getting stored or at the time of querying and reporting.

Q3. a) What solution(s) do you use for storing and managing persistence objects?

Udayan Banerjee: In most cases we use the traditional method of storing the objects in Relational Database. The translation at the time storing makes querying and reporting more efficient.

b) What experience do you have in using the various options available for persistence for new projects?

Udayan Banerjee: We are still into storing objects in RDBMS. We make extensive use of Object-Relational mapping tool. We have not used OODMBS in any live project.

c) What are the lessons learned in using such solution(s)?

Udayan Banerjee: The O-R translation code forms a significant percentage of the total code base. It makes the whole application more difficult to manage. Recent advances in the O-R mapping tools automates significant portion of code writing. However, I still feel that we need more elegant solution. Therefore, we are experimenting with storing object as XML inside RDBMS

Q4. Do you believe that Object Database systems are a suitable solution to the "object persistence" problem? If yes why? If not, why?

Udayan Banerjee: There are four problems to OODBMS adoption
- It requires a paradigm shift in mindset of people involved
- It has to demonstrate performance for querying and reporting
- It has to demonstrate scalability
- Finally, the question of trust also needs to be handled.
Therefore, it is unlikely to have wide spread adoption in the near future. One possible way forward is to have OODMBS features within standard RDBMS platforms. May have a better chance of adoption for SaaS provider.

Q5. What would you wish as new research/development in the area of Object Persistence in the next 12-24 months?

Udayan Banerjee: Provide relational view to all objects automatically.